

BEDES Strategic Working Group

First Meeting—December 12, 2013 (9:00-12:00)

Renaissance Downtown Hotel, Washington, DC

Convener: Norm Bourassa, Lawrence Berkeley National Laboratory

Facilitator: Dr. Jonathan Raab, Raab Associates, Ltd.

Meeting Summary

54 people attended the meeting in person and over the phone. The slide decks for this meeting can be found on the BEDES [website](#).

Welcome, Introductions, and Overview of SWG Process | 9:00

After introductions, Norm Bourassa, LBNL welcomed the SWG members, and Dr. Raab reviewed the SWG process and ground rules.

Use Cases | 9:15

Presentation. LBNL staff presented the priority use cases identified through the Scoping Study [1) Energy Efficiency Investment Decision-making; 2) Building Performance Tracking; and 3) Energy Efficiency Program Implementation and Evaluation.

Discussion. Following the presentation, the SWG members discussed the proposed initial use cases for BEDES. Some of the questions and comments included:

- Add incentive submission and approval to EE program Design and Evaluation use case
- BEDES will not provide a central framework for utility rate structures but rate structure is a field in BEDES
- BEDES does not have any cost data in terms of energy cost and utility rate structure
- Open EI is categorizing utility rates, which might cover that
- BEDES use in campus settings needs to be more extensive
- The focus of BEDES is currently on existing buildings. Potentially explore new construction and code compliance as use cases
- Broaden EE program Design and Evaluation to include supply side of utilities and ISO planning
- Building owners and managers care about different aspects of project financials than financial institutions do, such as credit aspects
- The use cases can share a bundle of use cases
- Industrial is not covered in the use cases
- Rebate processing and QA/QC is huge for program implementation
- Real estate/MLS needs to be represented somewhere
- How will BEDES help major corporations with tracking, disclosure and sustainability reporting? Public accounting firms follow specific guidelines for sustainability metrics reporting.

- Where does building code/construction fit into these use cases, if at all?
- Data related to building value is important for investment decision-making. Also important to know whether it's an appraisal, tax assessor value, or market-driven value of the building.
- Potentially call out audit activities within use cases
- Need to ensure BEDES enables definitions surrounding the financial review of energy projects including the time based dollar value of the energy savings
- We need to add water and renewable energy
- Its about getting specific software tools to be able to talk to each other
- Need to establish the use cases with more specificity up front and road test them ASAP

Use Cases Key Takeaways/Next Steps

- The three use cases suggested by LBNL seem like reasonable choices for BEDES for now, but LBNL could better frame them to include some of the aspects brought up (above). While there are no other additional large use cases needed now, more can be added in the future.
- LBNL will massage the use cases a bit and send them to the SWG ahead of the next meeting.
- Use cases should be further refined as people use BEDES.

BEDES Facility Type Structure | 10:00

Presentation. LBNL staff began by showing BEDES data structure and explaining that it is currently a relatively flat structure. SWG discussed value of clearly describing that BEDES includes (1) a dictionary, (2) a hierarchy/schema, and (3) file format for transmitting data electronically, but it is not (4) data collection guidelines or (5) a database.

LBNL then presented slides entitled “Multifamily Buildings—Unique enough for separate treatment?” This was followed by an SWG discussion on both how multi-family buildings should fit into BEDES and how discussion of multi-family buildings should occur in the working group process.

Discussion. Some of the questions and comments, about which aspects of multifamily buildings should be handled through the Residential vs. Commercial Sub-Groups, included:

- EPA's decision tree breaks down MF buildings in a logical way
- Unit level data is missing from BEDES (which matters for incentives). Unit type is an example.
- The types of ECMs are different for multifamily. You also need to know whether energy consumption is actually the whole building's data or an estimate based on a sample of units.
- MF should not be in Commercial Sub-Group (financed entirely differently, metered data is read differently)
- MF is inherently aggregated data to start with
- However it is categorized, separate MF definitions must exist. An MF category will help keep consistency between data exchange.
- MF needs its own facility type because it's hard when you have to hybridize and combine from other classes. And it's easier to sell if it has its own category, from a policy perspective.
- Owners see MF as a commercial assets, utility sees tenants as separate utility load profiles

- A key issue for MF is who pays the energy bills
- High-rise vs. low-rise is too simplistic to be useful as can have a relatively small high-rise multi-family building and a really large low-rise multi-family
- Another key issue is if there is a common area and whether it is conditioned
- Dividing multifamily subgroup tasks between the residential and commercial groups makes sense to some
- Scope of BEDES is to name and define the data, not to worry about the how to get the data, how to interrelate the data or privacy of unit-level data. So no need to have a separate facility type for multifamily.

Facility Type Structure Key Takeaways/Next Steps

- There should be a Multifamily facility type in BEDES
- There are some missing fields related to Multifamily that should be identified and added to BEDES
- It is fine to cover some aspects of Multifamily in the Commercial Sub-Group and some in the Residential Sub-Group. However, LBNL should pull together a focus group to review the Multifamily data fields together, make sure its not missing anything important, and deal with any additional issues specific to Multifamily.

BEDES Relationships to Other Key Specs | 10:45

Presentation. The LBNL staff began with brief presentations of key specs. Representatives included the EPA's ENERGY STAR Portfolio Manager, DOE's public tools (Commercial Energy Asset Score, Home Energy Score, MulTEA) and internal tools (the Compliance Tracking System and eProject Builder), NREL's specification for ASHRAE audits, LEED, the Uniform Methods Project, City Energy Project, Green Button and the Better Buildings Data Accelerator, Home Performance XML, Integrated Energy Project, and the Real Estate Transaction Standard. LBNL then presented some initial options for harmonizing BEDES to other key specs/efforts including three options: 1) Unified Spec; 2) Federated Spec; and 3) Mapped Spec.

Discussion. Some of the questions and comments included:

- Project haystack has completed the "tagging" model
- Multinational buildings and industrial buildings are not covered here
- GBXML- there is a lot of overlap there. It should be added as a schema
- Potentially phase the harmonization, starting with mappings
- Mapping won't go away because you are going to have ever changing differences
- The downside to mapping is interpretation
- There should be a structure of pointers to the source of data fields, such as external standards like HPXML. And there should be documentation to deal with the differences between standards.

Relationship to Key Specs Takeaways/Next Steps

- The following projects should be added to the “key specs” list: Haystack, GRESB, ASTM BEPA, MulTEA, Fanie Mae Green MF, GB XML. A process and strategy is needed for how these and other specifications may be mapped.
- Numerous SWG Members’ initial recommendation on the issue was that BEDES should always begin with #3 Translation (Mapped Spec) in relationship to other key specs, but aspire to become either #1 or #2 (Full Harmonization or Partial Harmonization) over time. The SWG also agreed that it should revisit this process in greater detail at a subsequent SWG meeting when it had more time to discuss.

Wrap-Up and Planning for Next Meeting | 11:45

- **Next meeting will be face-to-face on February 24th at LBNL in Berkeley, CA from 9 a.m. to approximately 4 p.m.**
- Considering creating an online forum of some kind to discuss specific issues on a time-limited basis. (e.g., HPXML used BaseCamp)
- Facilitator/LBNL will create draft meeting summary of this meeting, and agenda ahead of the February meeting—as well as circulate material ahead of the February meeting.
- SWG members will review materials ahead of February meeting.
- See Key Takeaways/Next Steps at the end of sections on Use Cases, BEDS Facility Type Structure, and Relationship to Key Specs for additional action items (above)

Attendance - First SWG Meeting - Dec 12, 2013			
Last Name	First Name	Organization	Mark w/X
Abercrombie	Steven	Innovate Washington	X
Alschuler	Elena	US DOE	X
Antonoff	Jayson	IMT	X
Balbach	Chris	Performance Systems Development	
Balsano	Rick	Opower	
Barnes	Jeff	San Diego Gas & Electric Co	X
Baron	Gregory	Hitachi Consulting	X
Best	Carmen	CA PUC	
Blaine	Joel	DOE	X
Bourassa	Norm	Lawrence Berkeley National Lab	X
Brauch	Michael	Actionet	X
Brill	Micah	ULI Greenprint	X
Burstiner	Brian	Sustainable Real Estate Solutions	
Caracino	Julie	National Home Performance Council	
Carey	Dave	Harcourt Brown & Carey	X
Cheifetz	Magnus	Building Energy Inc	X
Chou	Alex	IBM	
Cook	Leslie	EPA	X
Deru	Michael	NREL	X
Desiderio	Duane	The Real Estate Roundtable	X
Duer-Balkind	Marshall	District Department of the Environment	X
Earni	Shankar	Lawrence Berkeley National Lab	X
Fournier	Ashley	Southeast Energy Efficiency Alliance	
Frank	Andy	Sealed	
Fritsch	Andrew	Actionet/FEMP	
Gaspari	Alfred	PG&E	
Gilligan	Donald	NAESCO	X
Goel	Supriya	PNNL	
Golden	Matt	EDF	
Gowri	Krishnan	Pacific Northwest National Lab.	
Gurfel	Helen	ULI Greenprint Center for Building Performance	
Harangozo	Matej	greeNEWit	
Hendron	Bob	National Renewable Energy Laboratory	X
Hooper	Barry	SF Department of Environment	X
Jacobs	Cindy	EPA	
Johnson	Devan	kW Engineering	
Keck	Jon	Bright Power, Inc.	

Kismohr	Steve	Midwest Energy Efficiency Alliance	X
Ku	John	PG&E	
Larson	Rob	CRMLS	
LeBaron	Robin	National Home Performance Council	
Mercado	Andrea	Lawrence Berkeley National Lab	X
Merket	Noel	National Renewable Energy Laboratory	
Metoyer	Jarred	DNV KEMA Energy and Sustainability	
New	Joshua	Oak Ridge National Laboratory	
Panek	Mira	US Green Building Council	X
Peters	Ed	Opower	
Phillips	Joe	IBM	
Pyke	Chris	US Green Building Council	X
Raab	Jonathan	Raab Associates (facilitator)	X
Robbins	Lindsay	NYSERDA	X
Roth	Amir	DOE	
Roth	Stephen	Carmelsoft/gbXML	X
Sarno	Carolyn	NEEP	
Schultz	Robert	Pacific Northwest National Laboratory	
Settlemyre	Kevin	Sustainable IQ	
Sharrard	Aurora	Green Building Alliance	
Sherman	Genevieve	CEFIA	X
Slakman	Adam	ULI Greenprint	
Smith	Dana	National Institute of Building Sciences	
Studer	Daniel	National Renewable Energy Laboratory	
Stukel	Laura	CNT Energy	X
Sweetser	Richard	EEB Hub	
Thomas	Gregory	Performance Systems Development	
Tremper	Chris	DOE Federal Energy Management Program	X
Wagner	Scott	EEB Hub	
Wallen	Adam	Skyfoundry	X
Wang	Nora	Pacific Northwest National Laboratory	X
Winters	Dan	USGBC	
Yakubov	Yuri	PG&E	